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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/690,136 07/31/96 BRADY

K 96B011

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IM22/0703

EXAMINER
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TARAZANO, D	
ART UNIT	PAPER NUMBER

1773

DATE MAILED:

07/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application N .

08/690,136

Applicant(s)

BRADY ET AL

Examiner

D. Lawrence Tarazano

Art Unit

1773

-- **The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 51-89 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 51-89 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Art Unit: 1773

## **DETAILED ACTION**

### ***Continued Prosecution Application***

1. The request filed on 4-11-2001 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/690,136 is acceptable and a CPA has been established.

An action on the CPA follows.

### ***Claim Objections***

2. Claim 55 is objected to because of the following informalities: It has two periods. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 55-66, 73-75, and 85-87 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 1773

In section (b) of claim 55, it is not clear how "at least" relates to i) and ii). It is not clear if the films must have one of the recited properties or both.

Regarding claims 63, 64, and 73-75, it is not clear if the applicants mean that the actual film changes weight or if the weight/ unit area of the film changes.

In claims 85-87, it does not appear that the word "patter" is used appropriately.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 51-53, 55, 57-59, 61-65, and 67-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (5,865,926).

Wu et al. teach films which have been embossed by grooved rollers (figures 1 and 2). The films are porous as shown by example 1, have the claimed WVTR, and are olefin / filler compositions which have been laminated to a non-woven fibrous web. The laminated structure is passed through intersecting grooved rollers so the entire structure including the non-woven fibrous web has been passed through the grooved rollers and embossed.

Art Unit: 1773

Example 1 is made by lamination / extrusion which results in a two layer structure with no adhesive layer, this two layer structure would be the same as the applicants heat bonded structure. The other examples use a layer of adhesive which would correspond to the applicant's second film in which these structures have vapor permeabilities in the claimed range. However, they are silent regarding the change in the size of the structure when they are passed through the rollers or the temperature used, or specially show blend of polyolefins.

Since the extent of stretching / embossing would relate to the size of the porous around the particles used, and the three dimensional size of the laminate, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have varied the extent of stretching / embossing and the amount of particles present depending on the extent of water vapor transmission desire, since increased stretching/ embossing would increase the over all size of the laminate and contribute to the increased porosity of the laminate. This would relate to the claimed stretch ratios and weight (per unit area); the specifics of these parameters are related to the use of the films. For example, stretching a film by a factor or 1.5 to 3 would directly correspond to a decrease in weight per unit area by the same factor.

Regarding the embossing temperature, The applicants claim embossing temperatures in the range of 160 °F to 220 °F. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have increased the embossing temperature of the films taught by Wu et al. so that the film was softer and more easily embossed, or increased the embossing temperature depending on the melting point of the resins.

Art Unit: 1773

Furthermore, while the applicants' claim embossing temperatures of 160 °F to 220 °F there is nothing on the record to establish that these recited processing conditions results in a materially different product. The applicants state on page 10 of the specification that they can use embossing temperatures of 50-130 °F and on page 14 lines 4+ state that an embossing temperature of 160-220°F can be used and there is no indication that either temperature is preferred.

The compositions taught by Wu et al. comprise multiple polymeric components and filler so they teach blends as claimed. They also teach that materials such as LLDPE and HDPE (example 4) and suggest that blends of polymers can be used (column 3, lines 59+, especially column 4, line 5). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used blends of polymers comprising HDPE as one component since Wu et al. teach that HDPE is useful in the production of permeable films and further teach that blends would be useful. Finally, there is nothing on the record to establish any form of criticality to the components used.

Regarding claim 57 and the specific type of HDPE used, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have used commercially available HDPE materials which are either homopolymer or copolymers having minor amounts of the comonomers claimed. There appears to be no criticality to the specific HDPE materials used and the term HDPE would generically include the claimed copolymer materials.

Regarding claim 59, the materials taught by Wu et al. are useful in the production of medical garments in which a fluid barrier is need. This would correspond to the claimed surgical apparel since they are used in that environment.

Art Unit: 1773

Regarding claims 62, 70, 71, and 72, as shown by Wu et al., the film is tangential to the surface of the roller and then follows the roller until it meets the second roller. This takes about 1/4 a revolution as shown by the figure.

Regarding claims 79, 80, and 81, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have preheated the films taught by Wu et al. prior to the embossing step so that they would be softer and easier to emboss.

7. Claims 54, 56, 60, 66, 85-87, and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. (5,865,926) in view of Sheth et al. (5,055,338).

Regarding claims 54, 56, and 66, Wu et al, as discussed above, are silent regarding the use of elastomers as additives, but they teach that films can be produced from such materials (column 8, composition D)

Sheth et al. teach that the addition of elastomers in olefin permeable films results in stronger structures. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have included olefin elastomers such as those claimed in the polyolefin composition used in films taught by Wu et al. in order to make the structures stronger.

Regarding claim 60, It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have used pre-embossed films that were roller embossed in a second step by Wu et al. for use in applications in which increased dimensionality was desired since different embossing techniques can be used according to Seth et al.

Art Unit: 1773

Regarding claims 85-87 and 98, Wu et al. are silent regarding the formation of films having different thickness within the embossed areas. Seth et al. teach that permeable films can be produced in which the embossed pattern has various thicknesses. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used embossing rollers that produced films having thickness variations in the production of the films taught by Wu et al. since this is conventionally done in the art of permeable films as shown by Seth et al.

8. Claim 51-56, 58-67, 69, 70, 72, 73, 75, 76, 78, 79, 81, 82, 84, 85, 87, 88, and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sheth et al. (5,055,338) in view of Wu et al. (5,865,926)

Sheth et al. teach embossed films. These films are produced from a blend of polyethylene material and inorganic filler (50/50 blend of LLDPE and calcium carbonate) and polyisobutylene, example 1). The films also can comprise elastomers to improve the strength and softness of the resulting films (column 5, lines 13+).

The films are formed by a tubular extrusion process which results in the formation of a tubular film which is blown, and then stretched on rollers using conventional techniques. The tubular film is embossed after it has been formed (columns 5 and 6, especially column 6, lines 8+). The embossing can occur at any point in production (column 6, lines 3+) by methods known in the art.



Art Unit: 1773

A collapsed tubular film as shown by Sheth et al. would correspond to the claimed two layer structure. These films have high WVTR relates in both the metallized and un-metallized forms as shown by example 1. While the example is produced by cast extrusion, Sheth et al. teach how to produce blown films with very clear specificity, thus the claimed two layer structure is taught.

However, they are silent regarding: The specific use of interlocking rollers, the claimed roller temperatures, the change in the size of the structure when they are passed through the rollers, or pre-embossing the films.

Wu et al. teach permeable films which have been embossed by grooved rollers (figures 1 and 2). The films are porous as shown by example 1, have the claimed WVTR, and are olefin / filler compositions.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the interlocking embossing rollers taught by Wu et al. for the embossing step in the films taught by Sheth et al. since rollers of this type are useful in the production of permeable films from filled compositions. Furthermore, Sheth et al. state that embossing can generally be performed by methods known in the art.

Regarding the embossing temperature, the applicants claims embossing temperatures in the range of 160 °F to 220 °F. The Seth et al. suggests a general range of 70-130 °F (column 5, line 38); however, they further state that "the embossing roll temperatures will depend on the composition employed". It would have been obvious to one having ordinary skill in the art at the time the invention was made to have increased the embossing temperature of the films taught by Seth et al.

Art Unit: 1773

so that the film was softer and more easily embossed, or increased the embossing temperature depending on the melting point of the resins.

Furthermore, while the applicants' claim embossing temperatures of 160 °F to 220 °F there is nothing on the record to establish that theses recited processing conditions results in a materially different product. The applicants state on page 10 of the specification that they can use embossing temperatures of 50-130 °F and on page 14 lines 4+ state that an embossing temperature of 160-220°F can be used and there is no indication that either temperature is preferred.

Since the extent of stretching / embossing would relate to the size of the porous around the particles used, and the three dimensional size of the laminate, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have varied the extent of stretching / embossing and the amount of particles present depending on the extent of water vapor transmission desire, since increased stretching/ embossing would increase the overall size of the laminate and contribute to the porosity of the laminate. This would relate to the claimed stretch ratios and weight (per unit area); the specifics of these parameters are related to the use of the films. For example, stretching a film by a factor or 1.5 to 3 would directly correspond to a decrease in weight per unit area by the same factor.

Regarding claim 55, Seth teaches that the strength and softness of the films may be improved by the addition of a small amount of olefinic-elastomer (column 5, lines 13+). The applicants claim ethylene alpha-olefin rubber or ethylene alpha-olefin diene monomer rubber. The examiner takes the position that these are different ways of describing the essentially same class of materials.

Art Unit: 1773

Regarding claim 58, Wu uses his embossing rollers in the machine direction.

Regarding claim 59, a House wrap has no particular structure, *per se*; it is merely a film. The applicants do not claim any particular structure which would differentiate a house wrap from the films taught by Seth et al. The metallized films taught by Seth et al. would be suitable as a house wrap since they are useful in exterior environments (column 3, lines 15+), thus meet the claim.

Regarding claim 60, It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used pre-embossed films that were roller embossed in a second step in Wu et al for use in applications in which increased dimensionality was desired since different embossing techniques can be used according to Seth et al.

Regarding claims 70 and 72, as shown by Wu, the film is tangential to the surface of the roller and then follows the roller until it meets the second roller. This takes about 1/4 a revolution as shown by the figure.

Regarding claims 79 and 81, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have preheated the films taught by Seth et al. prior to the embossing step so that they would be softer and easier to emboss.

Regarding claims 85, 87, 88, and 89, the two layers tubular film would be embossed together. Seth et al. also teach that the film can be embossed with a pattern having different film thicknesses within the precursor film (column 6, lines 8-12). This appears to be the same structure claimed by applicants.

Art Unit: 1773

*Response to Arguments*

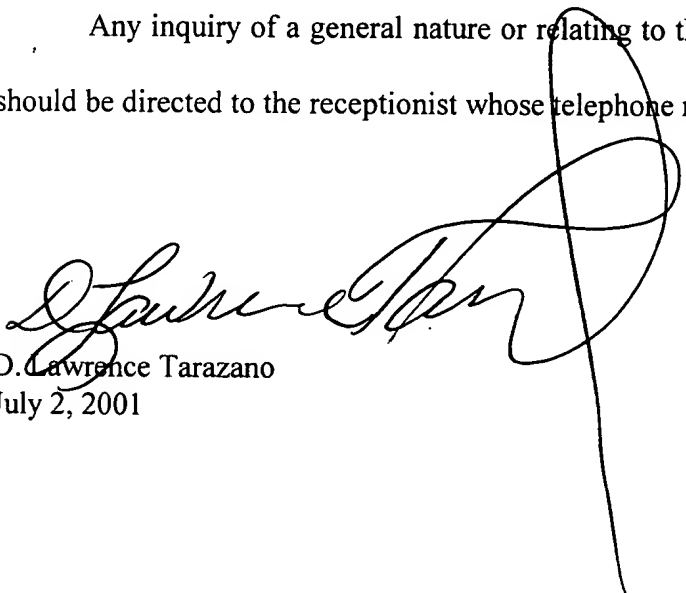
9. Applicant's arguments with respect to claims 51-89 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. L. Tarazano whose telephone number is (703)-308-2379. The examiner can normally be reached on 8:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on (703)-309-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9310 for regular communications and (703)-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0661.



D. Lawrence Tarazano  
July 2, 2001